COMMITTEE PRINT

June 24, 2003

108TH CONGRESS 1ST SESSION	H.R.	
	,	

IN THE HOUSE OF REPRESENTATIVES

Mr. Rohrabacher introdu	aced the following	g bill; which was	referred to the
Committee on			

A BILL

To authorize appropriations for the civil aviation research and development projects and activities of the Federal Aviation Administration, and for other purposes.

- 1 Be it enacted by the Senate and House of Representa-
- 2 tives of the United States of America in Congress assembled,
- 3 SECTION 1. SHORT TITLE.
- 4 This Act may be cited as the "Federal Aviation Ad-
- 5 ministration Research and Development Reauthorization
- 6 Act".

1	SEC. 2. AUTHORIZATION OF APPROPRIATIONS.
2	Section 48102(a) of title 49, United States Code, is
3	amended—
4	(1) by striking "to carry out sections 44504"
5	and inserting "for conducting civil aviation research
6	and development under sections 44504";
7	(2) by striking "and" at the end of paragraph
8	(7);
9	(3) by striking the period at the end of para-
10	graph (8) and inserting a semicolon; and
11	(4) by adding at the end the following new
12	paragraphs:
13	"(9) for fiscal year 2004, \$349,817,000,
14	including—
15	"(A) \$168,500,000 for Research, Engi-
16	neering, and Development, of which—
17	"(i) \$65,000,000 shall be for Improv-
18	ing Aviation Safety;
19	"(ii) \$24,000,000 shall be for Weath-
20	er Safety Research;
21	"(iii) \$15,000,000 shall be made
22	available to the Next Generation Air Traf-
23	fic Management Research and Develop-
24	ment Joint Program Office established
25	under section 3 of the Federal Aviation
26	Administration Research and Development

1	Reauthorization Act for the Next Genera-
2	tion Air Traffic Management Research and
3	Development program under such section
4	3;
5	"(iv) \$27,500,000 shall be for Human
6	Factors and Aeromedical Research;
7	"(v) \$10,000,000 shall be for Envi-
8	ronmental Research and Development;
9	"(vi) \$7,000,000 shall be for Research
10	Mission Support; and
11	"(vii) \$20,000,000 shall be for the
12	Airport Cooperative Research Program;
13	"(B) \$163,900,000 for Facilities and
14	Equipment, of which—
15	(i) \$42,800,000 shall be for Ad-
16	vanced Technology Development and
17	Prototyping;
18	"(ii) \$30,300,000 shall be for Safe
19	Flight 21; and
20	"(iii) \$90,800,000 shall be for the
21	Center for Advanced Aviation System De-
22	velopment; and
23	"(C) $$17,417,000$ for Airport Improvement
24	Program Research and Development, of
25	which—

1	"(i) \$9,667,000 shall be for Airports
2	Technology-Safety; and
3	"(ii) \$7,750,000 shall be for Airports
4	Technology-Efficiency;
5	"(10) for fiscal year 2005, \$374,540,000,
6	including—
7	"(A) \$185,000,000 for Research, Engi-
8	neering, and Development, of which—
9	"(i) \$65,705,000 shall be for Improv-
10	ing Aviation Safety;
11	"(ii) \$24,260,000 shall be for Weath-
12	er Safety Research;
13	"(iii) \$30,000,000 shall be made
14	available to the Next Generation Air Traf-
15	fic Management Research and Develop-
16	ment Joint Program Office established
17	under section 3 of the Federal Aviation
18	Administration Research and Development
19	Reauthorization Act for the Next Genera-
20	tion Air Traffic Management Research and
21	Development program under such section
22	3;
23	"(iv) \$27,800,000 shall be for Human
24	Factors and Aeromedical Research:

1	"(v) \$10,109,000 shall be for Envi-
2	ronmental Research and Development;
3	"(vi) \$7,076,000 shall be for Research
4	Mission Support; and
5	"(vii) \$20,000,000 shall be for the
6	Airport Cooperative Research Program;
7	"(B) \$172,000,000 for Facilities and
8	Equipment, of which—
9	"(i) \$43,300,000 shall be for Ad-
10	vanced Technology Development and
11	Prototyping;
12	"(ii) \$31,100,000 shall be for Safe
13	Flight 21;
14	"(iii) \$95,400,000 shall be for the
15	Center for Advanced Aviation System De-
16	velopment; and
17	"(iv) \$2,200,000 shall be for Free
18	Flight Phase 2; and
19	"(C) $$17,592,000$ for Airport Improvement
20	Program Research and Development, of
21	which—
22	"(i) \$9,764,000 shall be for Airports
23	Technology-Safety; and
24	"(ii) \$7,828,000 shall be for Airports
25	Technology-Efficiency; and

1	"(11) for fiscal year 2006, \$390,340,000,
2	including—
3	"(A) \$206,472,000 for Research, Engi-
4	neering, and Development, of which—
5	"(i) \$66,447,000 shall be for Improv-
6	ing Aviation Safety;
7	"(ii) \$24,534,000 shall be for Weath-
8	er Safety Research;
9	"(iii) \$50,000,000 shall be made
10	available to the Next Generation Air Traf-
11	fic Management Research and Develop-
12	ment Joint Program Office established
13	under section 3 of the Federal Aviation
14	Administration Research and Development
15	Reauthorization Act for the Next Genera-
16	tion Air Traffic Management Research and
17	Development program under such section
18	3;
19	"(iv) \$28,112,000 shall be for Human
20	Factors and Aeromedical Research;
21	"(v) \$10,223,000 shall be for Envi-
22	ronmental Research and Development;
23	"(vi) $7,156,000$ shall be for Research
24	Mission Support: and

1	"(vii) \$20,000,000 shall be for the
2	Airport Cooperation Research Program;
3	"(B) \$166,100,000 for Facilities and
4	Equipment, of which—
5	"(i) \$42,200,000 shall be for Ad-
6	vanced Technology Development and
7	Prototyping;
8	"(ii) \$23,900,000 shall be for Safe
9	Flight 21; and
10	"(iii) \$100,000,000 shall be for the
11	Center for Advanced Aviation System De-
12	velopment; and
13	"(C) $$17,768,000$ for Airport Improvement
14	Program Research and Development, of
15	which—
16	"(i) \$9,862,000 shall be for Airports
17	Technology-Safety; and
18	"(ii) \$7,906,000 shall be for Airports
19	Technology-Efficiency.".
20	SEC. 3. NEXT GENERATION AIR TRAFFIC MANAGEMENT RE-
21	SEARCH AND DEVELOPMENT JOINT PRO-
22	GRAM OFFICE.
23	(a) Establishment.—There is established a Next
24	Generation Air Traffic Management Research and Devel-
25	opment Joint Program Office (referred to in this section

- 1 as the "Office"). The Office shall be jointly managed by
- 2 the Federal Aviation Administration and the National
- 3 Aeronautics and Space Administration. The objective of
- 4 the Office shall be to carry out research and development
- 5 of an air traffic management system designed to meet na-
- 6 tional long-term aviation security, safety, and capacity
- 7 needs.
- 8 (b) DIRECTOR AND DEPUTY DIRECTOR.—The Office
- 9 shall be headed by a Director who shall be a senior execu-
- 10 tive of the Federal Aviation Administration. The Deputy
- 11 Director shall be a senior executive of the National Aero-
- 12 nautics and Space Administration. Not later than 120
- 13 days after the date of enactment of this Act, the Adminis-
- 14 trators of the Federal Aviation Administration and the
- 15 National Aeronautics and Space Administration shall
- 16 jointly appoint the Director and Deputy Director of the
- 17 Office.
- 18 (c) Functions of the Office shall
- 19 manage air traffic management research and development
- 20 programs and initiatives within the Federal Aviation Ad-
- 21 ministration and the National Aeronautics and Space Ad-
- 22 ministration. The responsibilities of the Office shall
- 23 include—
- 24 (1) establishing and managing a research and
- development program for a next generation air traf-

1	fic management system capable of tripling capacity
2	by the year 2025;
3	(2) entering into grants, cooperative agreements
4	or contracts, or otherwise awarding or using funds
5	appropriated for air traffic management research
6	and development to carry out paragraph (1);
7	(3) utilizing the facilities, capabilities, expertise,
8	and experience of Federal agencies, national labora-
9	tories, universities, nonprofit organizations, indus-
10	trial entities, and other non-Federal entities to carry
11	out paragraph (1);
12	(4) coordinating with the Department of De-
13	fense, the Department of Commerce, the Under Sec-
14	retary for Science and Technology at the Depart-
15	ment of Homeland Security, the National Security
16	Council, the Department of Transportation, and
17	other Federal agencies; and
18	(5) consulting with the private sector (including
19	representatives of general aviation, commercial avia-
20	tion, and the space industry), members of the public,
21	and other interested parties on the program.
22	(d) Next Generation Air Traffic Management
23	RESEARCH AND DEVELOPMENT PLAN.—

1	(1) REQUIREMENT.—The Office shall develop a
2	research and development plan to carry out this sec-
3	tion.
4	(2) Goal.—The goal of the plan shall be to en-
5	able the creation of a National Airspace System ar-
6	chitecture that would—
7	(A) be based on emerging ground-based
8	and space-based communications, navigation,
9	and surveillance technologies;
10	(B) increase the level of safety, security,
11	and efficiency of the National Airspace System;
12	(C) integrate data and information flow ef-
13	fectively with other Federal agencies responsible
14	for providing for our Nation's defense and secu-
15	rity;
16	(D) be scalable to accommodate and en-
17	courage substantial growth in domestic and
18	international transportation;
19	(E) anticipate and accommodate con-
20	tinuing technology upgrades; and
21	(F) accommodate a wide range of aircraft
22	operations, including airlines, air taxis, heli-
23	copters, general aviation, and unmanned aerial
24	vehicles.

1		(3) Contents.—The plan shall describe, at a
2	min	imum—
3		(A) the most significant technical hurdles
4		that stand in the way of achieving the goal de-
5		scribed in paragraph (2);
6		(B) the research and development projects
7		that will be carried out to overcome the tech-
8		nical hurdles described in subparagraph (A), in-
9		cluding, for each project, whether it would be
10		funded by the Federal Aviation Administration,
11		the National Aeronautics and Space Adminis-
12		tration, or both, and whether the work would be
13		carried by the Federal Government, corpora-
14		tions, or universities, or a combination thereof;
15		(C) the annual anticipated cost of carrying
16		out the plan;
17		(D) the technical milestones that will be
18		used to evaluate progress in carrying out the
19		plan; and
20		(E) how the research and development ac-
21		tivities will be coordinated with other appro-
22		priate Federal agencies.
23	(e)	Reports.—The Director of the Office shall
24	transmit	to the Committee on Science of the House of

1	Representatives and to the Committee on Commerce,
2	Science, and Transportation of the Senate—
3	(1) not later than 120 days after the date of
4	enactment of this Act, the plan required under sub-
5	section (d); and
6	(2) annually at the time of the President's
7	budget request, a report describing the progress in
8	carrying out the plan required under subsection (d)
9	and any changes to that plan.
10	SEC. 4. BUDGET DESIGNATION FOR RESEARCH AND DEVEL-
11	OPMENT ACTIVITIES.
12	Section 48102 of title 49, United States Code, is
13	amended by inserting after subsection (f) the following
14	new subsection:
15	"(g) Designation of Activities.—(1) The
16	amounts appropriated under subsection (a) are for the
17	support of all research and development activities carried
18	out by the Federal Aviation Administration that fall with-
19	in the categories of basic research, applied research, and
20	development, including the design and development of pro-
21	totypes, in accordance with the classifications of the Office
22	of Management and Budget Circular A–11 (Budget For-
23	mulation/Submission Process).
24	"(2) The Department of Transportation's annual
25	budget request for the Federal Aviation Administration

1	shall identify all of the activities carried out by the Admin-
2	istration within the categories of basic research, applied
3	research, and development, as classified by the Office of
4	Management and Budget Circular A-11. Each activity in
5	the categories of basic research, applied research, and de-
6	velopment shall be identified regardless of the budget cat-
7	egory in which it appears in the budget request.".
8	SEC. 5. AIRPORT COOPERATIVE RESEARCH PROGRAM.
9	Section 44511 of title 49, United States Code, is
10	amended by adding at the end the following new sub-
11	section:
12	"(f) AIRPORT COOPERATIVE RESEARCH PROGRAM.—
13	"(1) ESTABLISHMENT.—The Secretary of
14	Transportation shall establish an airport cooperative
15	research program to—
16	"(1) identify problems that are shared by
17	airport operating agencies and can be solved
18	through applied research but that are not being
19	adequately addressed by existing Federal re-
20	search programs; and
21	"(B) fund research to address those prob-
22	lems.
23	"(2) GOVERNANCE.—The Secretary of Trans-
24	portation shall appoint an independent governing
25	board for the research program established under

1	this subsection. The governing board shall be ap-
2	pointed from candidates nominated by national asso-
3	ciations representing public airport operating agen-
4	cies, airport executives, State aviation officials, and
5	the scheduled airlines, and shall include representa-
6	tives of appropriate Federal agencies. Section 14 of
7	the Federal Advisory Committee Act shall not apply
8	to the governing board.
9	"(3) Implementation.—The Secretary of
10	Transportation shall enter into an arrangement with
11	the National Academy of Sciences to carry out
12	projects proposed by the governing board that the
13	Secretary considers appropriate.".
14	SEC. 6. DEVELOPMENT OF ANALYTICAL TOOLS AND CER-
15	TIFICATION METHODS.
16	The Federal Aviation Administration shall conduct
17	research to promote the development of analytical tools to
18	improve existing certification methods and to reduce the
19	overall costs for the certification of new products.
20	SEC. 7. RESEARCH PROGRAM TO REDUCE COMMUNITY EX-
21	POSURE TO AIRCRAFT NOISE AND EMIS-
22	SIONS.
23	(a) In General.—Subchapter I of chapter 475 of
24	title 40 United States Code is amended by adding a new
	title 49, United States Code, is amended by adding a new

1	"§ 47511. Research program to reduce community ex-
2	posure to aircraft noise and emissions
3	"The Secretary shall provide an amount equal to 10
4	percent of the amount to be made available under section
5	47117(e)(1)(A) of this title, as estimated at the beginning
6	of a fiscal year, but not to exceed \$20,000,000, for re-
7	search activities related to reducing community exposure
8	to civilian aircraft noise or emissions through grants or
9	other measures authorized under section 106(l)(6) of this
10	title, including reimbursable agreements with other Fed-
11	eral agencies.".
12	(b) Conforming Amendment.—The analysis of
13	such subchapter I of chapter 475 is amended by adding
14	at the end the following:
	"47511 December meaning to reduce community amount to singuest unice and